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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/925,884	08/06/2001	Michael Kenny	259/079	7035

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EXAMINER
EL ARINI, ZEINAB

ART UNIT	PAPER NUMBER
1746	

DATE MAILED: 01/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/925,884	KENNY ET AL.	
	Examiner	Art Unit	
	Zeinab E. EL-Arini	1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-39* is/are pending in the application.

4a) Of the above claim(s) *31-34 and 38* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30,35-37 and 39* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-39* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *7* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

   I. Claims1-30, 35-37, and 39 are, drawn to a method for cleaning a flat media workpiece, classified in class 134, subclass 2.

   II. Claims 31-34 and 38 are, drawn to an apparatus for removing contaminants from a workpiece, classified in class 134, subclass 902.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the method as claimed can be practiced by another apparatus such as one without a fixture in the chamber for holding a workpiece.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

5. During a telephone conversation with MR. Ohriner on 12/18/02 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-30,

35-37, and 39. Affirmation of this election must be made by applicant in replying to this Office action. Claims 31-34 and 38 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Specification

7. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 1-30, 35-37, and 39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, " a heated liquid" is indefinite and very broad term, because specific temperature has not been recited.

In claims 1, 25, " jet liquid" is indefinite term, because it is not clear if the liquid is the heated liquid. Clarification is required.

In claim 13, line 2, " pressurized liquid" lacks antecedent basis.

In claim 25, line 3, " to, at least in part, form" is indefinite and confusing term.

Double Patenting

10. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

11. Claim 1 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 09/621,028. Although the conflicting claims are not identical, they are not patentably distinct from each other because the process as claimed in both applications are functionally equivalent.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13. Claims 1-4, 6-10, 13-17,22-27, 37, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuoka et al. (EP548,596).

Matsuoka et al. teach a method and apparatus for treating substrates. The reference teaches forming a boundary layer of liquid on a surface of the substrate, providing ozone in the environment around the surface, and directing a jet liquid to dislodge a contaminant on the substrate as claimed. See the abstract, page 2, line 44-page 3, line 1, lines 32-35, and the document in general.

Matsuoka et al. do not teach a heated liquid as claimed.

It would have been obvious for one skilled in the art to use the process taught by Matsuoka et al. to obtain the claimed process. This is because heated liquid as claimed is very broad term and it can read on liquid at 20°C or 25°C as taught by Matsuoka et al. It would have been obvious for one skilled in the art to adjust the pressure to obtain optimum results.

14. Claims 5, 11-12, 18-21, 28-30, and 35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuoka et al. in combination with Bergman (5,232,511), Koizumi et al. (5,503,708), Matthews (5,464,480) and Kosofsky et al. (5,803,982).

Matsuoka et al. as discussed supra do not teach the temperature, the irradiating step, the steam, the sonic energy, the heating, and the concentration as claimed.

Bergman teaches a method for processing semiconductor wafers. The reference teaches the cleaning solution, the radiation, heating the wafer surface, and the circulation as claimed. See the document in general.

Koizumi et al. teach a method for removing organic film from a substrate. The reference teaches using steam to heat the surface as claimed. See the document in general.

Matthews teaches a process for treating semiconductor wafers. The reference teaches using the ultraviolet and the sonic energy as claimed. See the abstract and the document in general.

Kosofsky et al. teach a pressure washing apparatus with ozone generator. See the abstract, and the document in general. The reference teaches moving the jet of pressurized liquid relative to the workpiece surface as claimed.

It would have been obvious for one skilled in the art to use the heating, the circulation, and the radiation steps taught by Bergman, the steam taught by Koizumi et al., the sonic energy taught by Matthews, and the moving step taught by Kosofsky et al. in the Matsuoka et al. process to obtain the claimed process. This is because all references are from the same technical endeavor which is treating a semiconductor wafer. This is also because heating the substrate by using steam, and using the sonic energy in cleaning semiconductor wafer are well known in the art. One skilled in the art would move the pressurized fluid over the surface to increase and improve the cleaning process.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zeinab E. EL-Arini whose telephone number is (703) 308-3320. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (703) 308-4333. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9310 for regular communications and (703)872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Zeinab E. EL-Arini
Primary Examiner
Art Unit 1746

ZEE
January 7, 2003